

At the Point of Learning: Maine's 1:1 Learning Program



Jeff Mao
Learning Technology Policy Director
State of Maine
Department of Education

Maine - by the numbers

- State of Maine
 - Land: 91,646 km² (Zhejiang Province: 101,800 km²)
 - Total population: 1.3 million
 - Student population (K12): 187,000
- Maine Learning Technology Initiative
 - Schools: 373 secondary schools
 - 7-8: 100% | 9-12: 55%
 - ~70,000 laptops



MLTI Goals

- ✦ Equity
- ✦ Integration with Maine's *Learning Results*
- ✦ Sustainability/Avoiding Obsolescence
- ✦ Teacher Preparation and Professional Development
- ✦ Economic Development



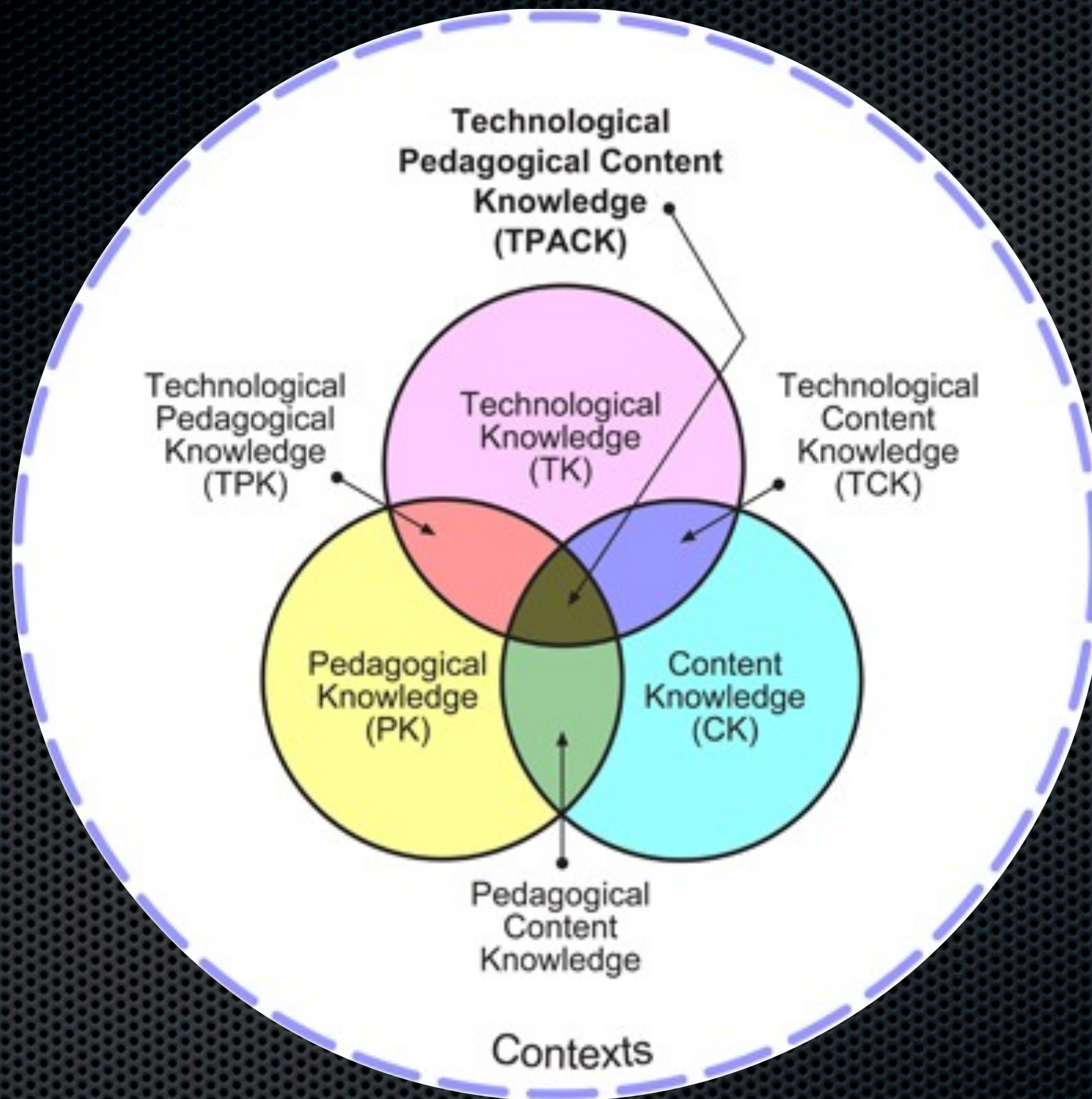
**“A personal digital device,
at the point of learning,
as defined by the student.”**

Susan Gendron
Maine Department of Education
Commissioner of Education



Defining “Technology Integration”

- Integration with Maine’s *Learning Results*
- Teacher Preparation and Professional Development



Dr. Matthew Koehler and Dr. Punya Mishra

<http://www.tpck.org>

SAMR

Dr. Ruben Puentadura

<http://www.mlti.org/presentations>

<http://www.hippasus.com/resources/tte/>

Augmentation

**Acts as a direct tool
substitute, with functional
improvement**

Substitution

**Acts as a direct tool
substitute, with no
functional change**

Augmentation

Acts as a direct tool
substitute, with functional
improvement

Substitution

Acts as a direct tool
substitute, with no
functional change

Redefinition

Allows for the creation of
new tasks, previously
inconceivable

Modification

Allows for significant task
redesign

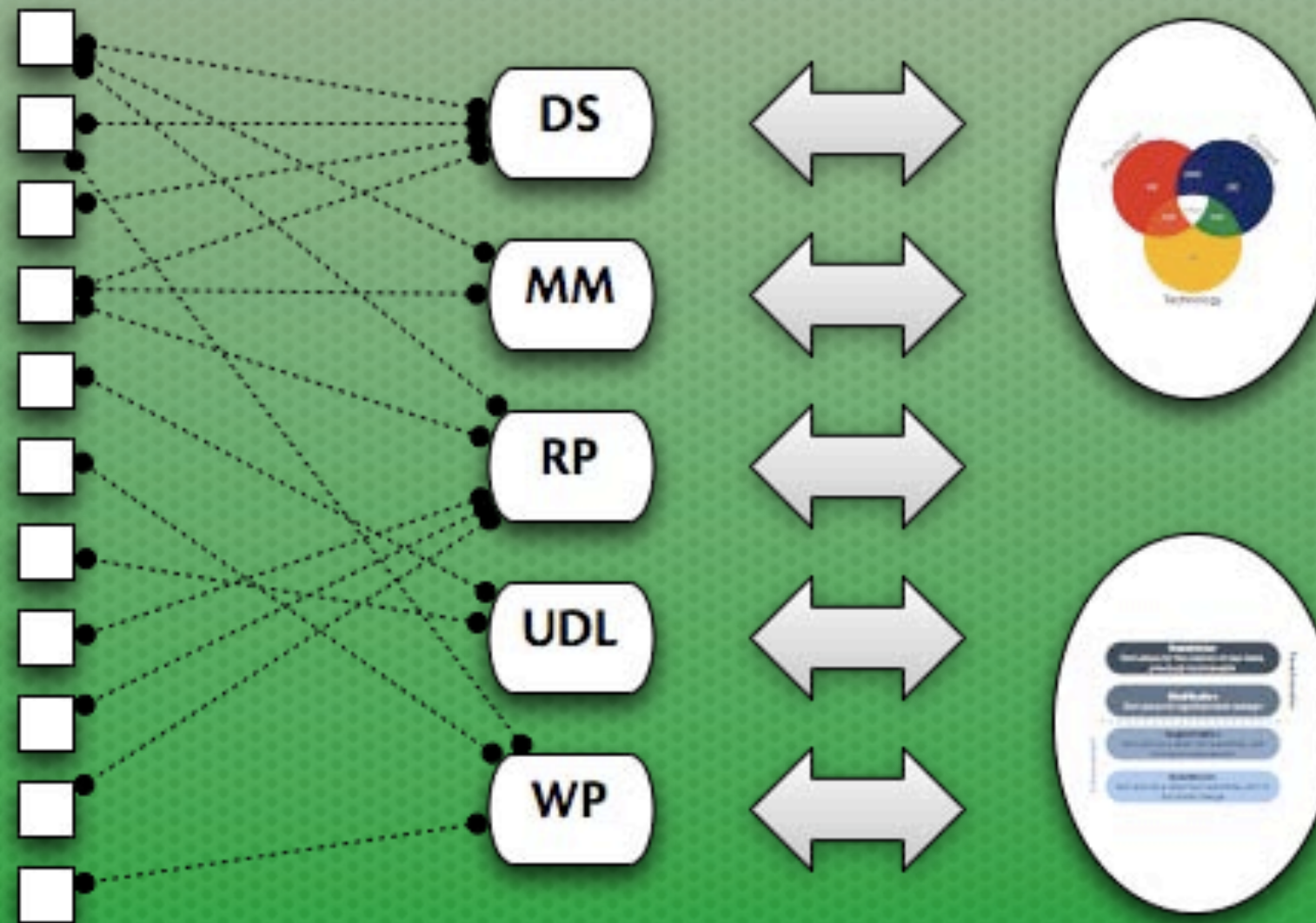
— — — — —
Augmentation

Acts as a direct tool
substitute, with functional
improvement

Substitution

Acts as a direct tool
substitute, with no
functional change

F2F Sessions



What's on
Your MacBook?
(podcasts)

Lenses
(webinars/podcasts)

TPCK/SAMR
(podcasts)

Other Podcasts

5 Lenses

- ✦ [DS] Digital Story Telling and Media Production
- ✦ [MM] Making Meaning
- ✦ [RP] Research Process
- ✦ [UDL] Universal Design for Learning and Accessibility
- ✦ [WP] Writing Process

Role-based Professional Development

- ✦ Teacher
- ✦ Technology Support
- ✦ Leadership

Procurement and Funding

- Sustainability/Avoiding Obsolescence

Request For Proposals/ Contract

- ✦ <http://www.mlti.org/rfp>
 - ✦ Focus on Educational Outcomes
- ✦ Contract for Services
 - ✦ For copies of the contract, please contact Jeff Mao, Jeff.Mao@Maine.Gov directly

Request for Proposals

- ✦ Support educational goals
- ✦ non-specific - define the challenges and outcomes, not the solution
 - ✦ Allow the vendors to flexibility to provide innovative solutions
 - ✦ Allow for exceptions with functional equivalent solutions

Request for Proposals

- ✦ No student without a device for more than one school day
- ✦ Tools to support educational needs:
 - ✦ writing
 - ✦ data analysis
 - ✦ presentations and publishing,
 - ✦ multimedia creation
 - ✦ information management
 - ✦ research
 - ✦ communication
 - ✦ collaboration

1:1 Ecosystem

Student	a personal digital device, at the point of learning, as defined by the student
Teacher	TPCK-SAMR
Professional Development	Classroom focused, role-based
Technical Support	Embedded, Student/Teacher centric
Infrastructure	Wireless & Ubiquitous
Leadership	Pressure and Support
21st Century Tools	Portable, professional, robust. Foster collaboration and communication

Research and Evaluation

20th Century Assessments
in a 21st Century World

20th and 21st Century Questions

20th and 21st Century Questions

20th C

Who?

What?

Where?

When?

20th and 21st Century Questions

20th C	21st
Who?	Why?
What?	How?
Where?	
When?	

Gains in Student Achievement

Writing

RESEARCH BRIEF

Maine's Middle School Laptop Program: Creating Better Writers



Portrait from David Hall photo by Doug Jones

David L. Silverman

Aaron R. Critter

Maine Education Policy Research Institute
University of Southern Maine

- ✦ Compared before and after 1-to-1 implementation
- ✦ Writing scores on MEA improved approximately 1/3 of a standard deviation
- ✦ Twice as many students using laptops for all stage of writing process met proficiency standard
- ✦ Improvements were independent of test format – online or paper and pencil.

<http://usm.maine.edu/cepare/>

Formative assessment versus Summative assessment

Lessons learned

- ✧ Leadership Leadership Leadership
- ✧ F2F PD is great, but not scaleable and it's expensive
- ✧ Centralized State contract
 - ✧ “one throat to choke” works
- ✧ 1:1 is an ecosystem

Slides and more detailed podcast
recordings available at:

<http://www.mlti.org/presentations>

